

### **REMARKS**

Applicants' representative thanks the Examiner for the courtesies extended during the telephonic conference on February 28, 2007, with Francis Dunn. During the conference, there was discussion regarding overcoming the rejections of the subject claims, including discussion regarding claims 5, 18, 19, 40, and 43. There was also discussion regarding various aspects of the claimed subject matter, including discussion regarding an "implicitly trained probability-based classifier," a "focus of attention of a user," and "determining a loss function based on an expected cost in lost opportunities."

Claims 5-55 are currently pending in the subject application and claims 5-21 and 40-55 are presently under consideration. Claims 1-4 are canceled. Claims 18, 22-39, 42, and 43 are withdrawn. Claims 5, 19, 40, 41, 45, 50, and 51 have been amended as shown on pages 2-8 of the Reply. No new matter has been added, and amendments made herein will not require a new search.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Rejection of Claims 5-21 and 40-55 Under 35 U.S.C. § 102(b)**

Claims 5-21 and 40-55 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Donohue (US 6,484,197). It is requested that this rejection be withdrawn for at least the following reason. Donohue does not disclose each and every element of the subject claims.

For a prior art reference to anticipate, 35 U.S.C. § 102 requires that "*each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting Verdegaaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)) (emphasis added).

The claimed subject matter relates to the prioritizing of an item of information, such as text or an e-mail message. In one aspect of the claimed subject matter, a probabilistic-based classifier can be employed for decision making and/or rendering inferences associated with determining priority of an item. In an aspect of the claimed

subject matter, the classifier can be explicitly trained with, for example, predefined data sets, and/or implicitly trained, which can include real-time training, so the classifier may “learn” how to discriminate, and/or render an inference, with regard to the priority of the item. For example, the implicit training of the classifier can include using current and historical information regarding a user’s presence, activity, and focus of attention of a user (e.g., keyboard activity, mouse activity); and such information, as well as other information, can be utilized to adaptively update (e.g., refine) the classifier. The classifier can then be employed to determine priority for a received item (e.g., text), and that priority can be utilized to facilitate electronic communication.

In particular, independent claim 5, as amended, recites: *implicitly training the probabilistic-based classifier to infer a priority level of a received item based in part on at least one of current or historical information of at least a focus of attention of a user that are indicative of item priority levels, the focus of attention comprising at least one of keyboard activity or mouse activity, or a combination thereof, associated with the user; [and] determining a priority level of the received item utilizing the probabilistic-based classifier.* Donohue does not disclose this distinctive feature of the claimed subject matter.

Rather, Donohue relates to filtering mail to mitigate problems with SPAM mail or unwanted access across a network. (See Abstract). Donohue discloses that a sender of mail sends a receiver of mail a token that is attached to the message being sent. (See col. 2, lns. 10-14). The receiver then replies to the message or sends later messages by attaching the same token. (See col. 2, lns. 14-15). If the token is not attached to or included in the message received by the original sender, then the message is dropped or deleted, or marked unsolicited, and copied to a relevant folder. (See col. 2, lns. 20-23). If the token is attached then the token is preferably examined to see if it is valid. (See col. 2, lns. 24-25). If valid, the e-mail is accepted, and if not valid, the e-mail is dropped or marked unsolicited, and copied to another relevant folder. (See col. 2, lns. 25-28).

However, unlike the claimed subject matter, Donohue fails to disclose a probabilistic-based classifier that can infer a priority level of a received item. Further, Donohue fails to disclose implicitly training such a probabilistic-based classifier. Instead, Donohue discloses generating a token using a function. (See col. 2, lns. 43-64).

However, the function is not probabilistic and does not infer an action to take or a priority level. Further, Donohue fails to disclose inferring or determining a priority level of a received item based on historical or current information associated with a focus of attention of a user.

In contrast, the claimed subject matter can determine the priority of an item (e.g., text) by utilizing *a probabilistic-based classifier* that is *trained* with predefined data sets and can make inferences associated with the priority of the item. Further, the classifier can be *implicitly trained* over time based on historical and current information regarding the *focus of attention of a user*. For example, the classifier can analyze information as to when a user is focused on a computer associated with the user, such as by looking at information regarding *keyboard activity and/or mouse activity* associated with the user's computer. Such information can be used to determine a priority of a received item (e.g., e-mail), which can be used to facilitate communication. For example, if there information from which to infer that the user is at the computer, such information can be utilized, along with other information, to determine a priority level for the message, and whether an automated function (e.g., generating an alert signal or message) to notify the user of the received item.

Further, claim 40, as amended, recites: *determining a loss function based on an expected cost in lost opportunities as a function of an amount of time delayed in reviewing an item after the item has been received, the lost opportunities comprising an opportunity to attend a meeting at a specified time; classifying priority of the item based in part on the loss function utilizing a trained classifier; and utilizing the classified priority of the item to infer a desired computer-based automated action to take to facilitate electronic communication*. Donohue fails to disclose this distinctive feature of the claimed subject matter.

Rather, Donohue simply relates to whether a message should be received by a recipient based on whether a valid token has been attached to the message. (See col. 2, lns. 10-28). Donohue is silent regarding determining a loss function based on an expected cost of lost opportunities as a function of an amount of time delayed in reviewing an item after it has been received.

In contrast, the claimed subject matter can generate a priority level for a message based in part on a loss function, and can utilize the priority level to infer a computer based automated action to take in order to facilitate electronic communication. The loss function can be based on examining the expected cost in lost opportunities that may be incurred in not reviewing a message when it is received and how that cost may change as a function of time associated with the length of time until review of the message, for example. As further example, a message may be received regarding an upcoming meeting. If the message is not reviewed until after the meeting has taken place, there can be a cost associated with that lost opportunity to attend the meeting. Based in part on that loss function, a trained classifier can generate a priority level for the message. Such priority level can be utilized, for example, to determine or infer an automated course of action to be taken by a computer with respect to the message in order to facilitate communication.

In view of at least the foregoing, it is readily apparent that Donohue fails to disclose each and every element of the claimed subject matter as recited in independent claims 5 and 40 (and associated dependent claims 6-17, 19-21, 41, and 44-55). Further, claims 18, 42, and 43 are withdrawn herein rendering rejection of these claims moot. Accordingly, the rejection should be withdrawn.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063[MSFTP263USA].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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